



LOS TRETOS STREET SPEED STUDY



Los Tretos Street Speed Study Final Report

Albuquerque, New Mexico



Souder, Miller & Associates ♦ 3451 Candelaria Road NE, Suite D
Albuquerque, NM 87107-1948 ♦ (505) 299-0942 ♦ (877) 299-0942 ♦ fax (505) 293-3430



City of Albuquerque

June 2017

Table of Contents

INTRODUCTION	1
1.A. PROJECT PURPOSE	1
1.B. PROJECT DESCRIPTION	1
1.C. BACKGROUND OF SPEED LIMITS	3
1.D. SETTING SPEED LIMITS	3
2. EXISTING CONDITIONS	5
2.A. COUNT LOCATIONS	5
2.B. EXISTING CONDITIONS	5
3. DATA	7
3.A. ADT	7
3.B. PEAK HOUR TRAFFIC VOLUMES	7
3.C. SPEED STUDY RESULTS	8
3.D. CRASH DATA	9
4. U.S. LIMITS SPEED LIMITS PROGRAM	10
5. CONCLUSION	11
Appendices	12



List of Tables

Table 3.A.1.	Los Tretos Street ADT	7
Table 3.B.1.	Los Tretos Street Peak Hour Traffic Volumes (vph)	7
Table 3.C.1.	Los Tretos Street North Speed Study.....	8
Table 3.C.2.	Los Tretos Street South Speed Study.....	8
Table 3.C.3.	Los Tretos Street ADT \geq 25 mph.....	8
Table 3.D.1.	Los Tretos Street Crash Summary	9
Table 5.1.	COA NMTP Traffic Calming Measures	11



List of Figures

FIGURE 1.B.1. STUDY LOCATION	1
FIGURE 1.B.2. STUDY LIMITS	2
FIGURE 2.1. COUNT LOCATIONS.....	6
FIGURE 2.2. EXISTING LOS TRETOS STREET TYPICAL SECTION	6



INTRODUCTION

The City of Albuquerque – Department of Municipal Development (Traffic Engineering Design Division) has requested that Souder, Miller & Associates conduct a speed study along Los Tretos Street in northwest Albuquerque.

1.A. PROJECT PURPOSE

A speed study on Los Tretos Street from the end of the cul-de-sac to Ladera Drive was conducted to determine the following:

- Evaluate the 85th percentile speed along Los Tretos Street at two (2) locations;
- Calculate average and daily peak hour traffic volumes along Los Tretos Street.

As part of this study, an evaluation and cataloging of existing roadway conditions, collection of historical ADT, and crash data will be completed.

1.B. PROJECT DESCRIPTION

The study area will be a 0.22 mile (1161.6 LF) section of Los Tretos Street from the end of the cul-de-sac to Ladera Drive. Figure 1.B.1. below displays the study location and Figure 1.B.2. on page 2 displays the study limits.

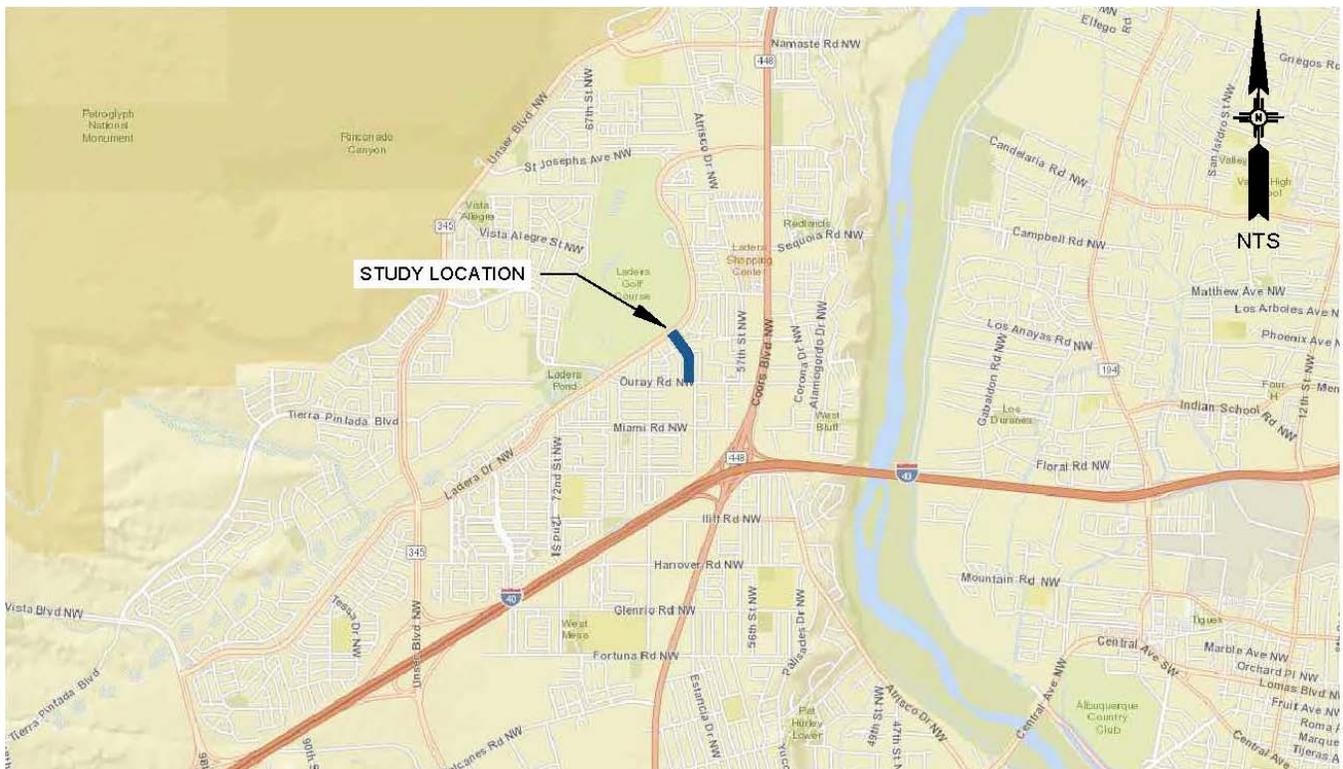


FIGURE 1.B.1
STUDY LOCATION



FIGURE 1.B.2.
STUDY LIMITS



1.C. BACKGROUND OF SPEED LIMITS

Speed limits are established on roadways of virtually all classifications, from interstate freeways to low volume local streets. The primary purpose of speed limits is to give motorists clear instruction as to what is a reasonable speed for them to drive at while traveling on a given roadway.

Among regulatory signage, speed limit signs arguably contain the most critical information that motorists need to be informed of while driving (next to stop signs, which are considered the highest impact regulatory sign). Drivers unfamiliar with a roadway often do not realize what characteristics the roadway has, and properly established speed limit signs give them the information they need to drive the roadway safely.

The NMDOT has guidelines for analyzing and establishing posted speed limits; the following text is based on one such example:

Realistic posted speed limits are of public importance for many reasons:

- They invite public compliance by conforming to the behavior or the driving majority
- They give clear reminders of safe and reasonable speeds to non-conforming violators
- They offer the most effective tool for law enforcement of safe driving
- They will minimize public antagonism toward law enforcement that results from unreasonable regulations

Improperly, or artificially low, posted speed limits can cause problems for state and local agencies for several reasons:

- They do not encourage voluntary compliance, since they do not reflect the behavior of the majority
- They make the behavior of the majority unlawful
- They maximize public antagonism toward law enforcement, since the perception is that the police are enforcing a “speed trap”
- They create a bad image for a community in the eyes of tourists / visitors

1.D. SETTING SPEED LIMITS

In accordance with Section 66-7-303 of the New Mexico Criminal and Traffic Law Manual, the speed limit on state highways shall be set by the Cabinet Secretary of the Department of Transportation, based on an engineering survey and traffic investigation that includes the following parameters.

- Spot speed studies (typically consisting of 100 vehicles)
- Roadway geometry/number of lanes
- Roadside environment and characteristics
- Building setbacks (if within a commercial business district)
- Driveway and intersection spacing/density
- Historical crash data for the roadway study area

Many speed limits are established using the theory of 85th percentile. Out of the (typically) 100 vehicles surveyed, beginning with the fastest vehicle speed recorded the 15th vehicle from that speed is determined to show where the 85th percentile speed is. This is assuming that most drivers (85%) drive within reasonable limits. The posted speed limit can be established and is usually the 5 – mph increment just below the 85th percentile speed. For example, if the 85th percentile speed



has been determined by an engineering survey to be 57 mph, the posted speed would be 55 mph. This method of posting speed limits allows for a reasonable posted speed limit that can be enforced by local agencies, without creating a speed trap.

For surveys with a different amount than 100 vehicles, the 85th percentile speed is determined by the following formula: $100/15 = \# \text{ of vehicles surveyed}/X$ (where $x =$ the vehicle at the 85th percentile). For example, a 50 vehicle survey would result in:

$$\frac{100}{15} = \frac{50}{x}$$

Where $x = 7.5$, or the 8th vehicle in the survey

Other methods are frequently used to further analyze the posting of speed limits – these are the mode, median, and geometric mean:

- Mode is the most frequently clocked vehicle speed in a given survey. For example, in a 100 vehicle survey where 12 vehicles were clocked traveling 55 mph and no other speed was observed as frequently, the mode is 55 mph.
- Median is the numerical midpoint of a given survey. For example, in a survey of 100 vehicles, the speeds of the 50th and 51st vehicles are added and divided by 2 to obtain the median speed. If the 50th vehicle of such a survey was traveling at 56 mph and the 51st vehicle was also traveling at 56 mph, the resulting median would be $(56 + 56) \div 2 = 112 \div 2 = 56$ mph
- Geometric mean is described as follows: “an average of a set of numbers that is calculated by multiplying all the numbers (“n”), and taking the nth root of the total.”

Formula for Geometric Mean:

$$\text{Geometric Mean} = ((X_1)(X_2) \dots \dots (X_n))^{1/N}$$

$X =$ Individual score (speed)
 $N =$ Sample size (number of scores)

Geometric Mean Example:

Sample speeds = 51, 52, 55, 58, and 60 mph

Step 1:

$N = 5$, the total number of values, $\frac{1}{N} = 0.2$

Step 2:

Determine geometric mean using the formula.

$$\text{Geometric Mean} = ((51)(52)(55)(58)(60))^{0.2} = 55.09 \text{ mph}$$

In most cases, the geometric mean of a speed study will be of similar value of the median, often within 1 to 2 mph of either side of the median. In the above example, the median speed would be the third vehicle surveyed (55 mph), and the geometric mean is 55.09 mph.

2. EXISTING CONDITIONS

2.A. COUNT LOCATIONS

The study area included two (2) volume and speed count locations which were at the following locations:

- Los Tretos Street between Pastorcito Drive and Ladera Drive;
- Los Tretos Street between the end of cul-de-sac and Pastorcito Drive.

Figure 2.1. on page 6 displays the approximate traffic count locations.

2.B. EXISTING CONDITIONS

Figure 2.2. on page 6 displays the existing typical section of Los Tretos Street. Within the study limits, there are 2 intersections and approximately 21 driveways that provide access to homes and a park is located at the end of the study limits.





FIGURE 2.1.
 COUNT LOCATIONS

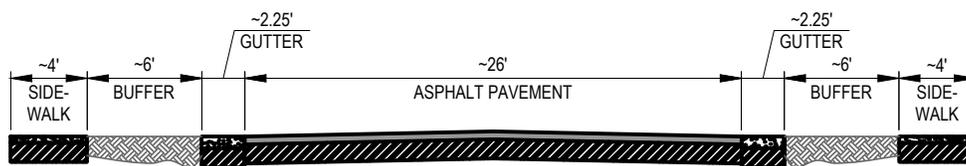


FIGURE 2.2.
 EXISTING LOS TRETOS STREET TYPICAL SECTION



3. DATA

3.A. ADT

The ADT for the two (2) count locations are listed below in Table 3.A.1.

Table 3.A.1.			
Los Tretos Street ADT			
Count Location	NB	SB	ADT
Los Tretos Street North	209	177	386
Los Tretos Street South	175	117	292
Average	192	147	339

The Los Tretos Street study area ADT directional ranges from 117 to 209 vehicles per day.

3.B. PEAK HOUR TRAFFIC VOLUMES

The peak hour traffic volumes for the two (2) count locations are shown below in Table 3.B.1.

Table 3.B.1.			
Los Tretos Street Peak Hour Traffic Volumes (vph)			
Count Location	Peak Hour	Northbound (Peak Hour)	Southbound (Peak Hour)
Los Tretos Street North	AM Peak	35 (7:30 AM - 8:30 AM)	15 (8:00 AM - 9:00 AM)
	PM Peak	29 (5:45 PM - 6:45 PM)	22 (5:00 PM - 6:00 PM)
Los Tretos Street South	AM Peak	27 (7:00 AM - 8:00 AM)	14 (8:30 AM - 9:30 AM)
	PM Peak	24 (6:15 PM - 7:15 PM)	14 (12:45 PM - 1:45 PM)

The Los Tretos Street study area peak hour traffic volumes range from 14 to 35 vehicles per hour.

3.C. SPEED STUDY RESULTS

The results of the speed study are displayed below in Tables 3.C.1. and 3.C.2.

Table 3.C.1.			
Los Tretos Street North Speed Study			
Speed	NB	SB	Total
Average	15.7	16.0	15.8
10 mph Pace	7.7 - 17.6 (40.0%)	6.5 - 16.4 (46.9%)	5.9 - 15.8 (39.5%)
50th Percentile	14.9	14.2	14.9
67th Percentile	21.4	21.4	21.5
85th Percentile	24.7	24.3	24.5

Table 3.C.2.			
Los Tretos Street South Speed Study			
Speed	NB	SB	Total
Average	17.3	16.6	17.0
10 mph Pace	20.1 - 30.0 (51.4%)	6.2 - 16.1 (52.8%)	20.1 - 30.0 (49.2%)
50th Percentile	20.7	13.4	20.2
67th Percentile	22.6	22.1	22.4
85th Percentile	24.5	24.7	24.6

When considering whether to establish a new posted speed limit or not, surveying the existing traffic speeds is crucial to determining a reasonable posted speed limit.

Before a posted speed limit can be adjusted, an analysis must be conducted to ascertain whether or not the speed limit can be adjusted without resulting in further increases of motorists' travel speeds. Motorists usually drive at speeds which they perceive as safe, based on the observable roadway conditions. A flat and straight roadway may result in a different travel speed than the posted speed limit due to the driver's observation of the roadway condition.

In relation to Los Tretos Street, roadway conditions are consistent; controlled access, satisfactory pavement conditions, two travel lanes, and on-street parking. Table 3.C.3 displays that 13 percent of the total ADT of the two count locations recorded speeds greater than 25 mph.

Table 3.C.3.							
Los Tretos Street ADT ≥ 25 mph							
Speed (mph)	0 - 19.9 MPH		20 - 24.9 MPH		≥ 25 MPH		Avg. ADT
Los Tretos Street North	227	61%	96.5	26%	49	13%	372.5
Los Tretos Street South	144	49%	109.5	38%	38	13%	291.5
Total	371	56%	206	31%	87	13%	664



3.D. CRASH DATA

Crash data was requested from the Mid-Region Council of Governments. The crash data requested showed there was 2 recorded crashes within the study area from 2012 to 2014.

Table 3.D.1.					
Los Tretos Street Crash Summary					
Year	Location	Cause of Crash	Crash Analysis	Crash Severity	Crash Correct with Traffic Calming?
2014	Los Tretos Street / Pastorcito Drive	Excessive Speed	Vehicle Struck Pedalcyclist at Angle	Non-Fatal Crash	Yes
2014	Pastorcito Drive / Los Tretos Street	Failure to Yield	Intersection - From Opposite Direction / Both Going Straight	Property Damage Only	No

4. U.S. LIMITS SPEED LIMITS PROGRAM

U.S. Limits is an FHWA sponsored program used to analyze speed limits. This program calculates a recommended speed limit based on the criteria given, which is listed on the website as follows:

- Density of surrounding development (e.g. high density, low density, or rural);
- Frequency of roadside access (e.g. number of residential driveways, commercial, industrial, shopping, and special activity properties, and the number and type of intersection roads);
- Road function (e.g. traffic movement vs. access to abutting properties);
- Road characteristics (e.g. paved width, divided or undivided, lane width, number and lanes, and sight restrictions);
- Road conditions and important high speed road characteristics (e.g. interchange spacing, AADT, and shoulders);
- Existing vehicle operating speeds;
- Adjoining speed limits: and
- Any special conditions that may exist on the road section (e.g. adverse alignment, pedestrian and roadside activities, high crash rates, etc.)

This analysis was used for Los Tretos Street and based on the data entered into <http://www.uslimits.com> for the above-listed categories. The output sheet is shown in Appendix A – U.S. Limits Output. The U.S. Limits Output recommended a speed limit of 20 mph.



5. CONCLUSION

After evaluating the volume and speed data within the project area, it is concluded that 13% of traffic is exceeding 25 mph and the 85th percentile for both the northbound and southbound at the north count location does not exceed the speed limit by 5 mph or more. In order to meet criteria for traffic calming measures as outlined in the City of Albuquerque’s Neighborhood Traffic Management Program, at least two (2) of the following threshold criteria must be met:

Figure 5.1. COA NMTP Traffic Calming Measures	
Description	Warranted?
Reported crashes in the past 3 years that could be corrected with traffic calming	Yes
Peak-hour traffic volume greater than 400 vehicles in one direction	No
25% of peak-hour traffic is non-local cut-through traffic	Not Studied
85th percentile speeds exceeds the posted speed limit by 5 mph or more	No

Based on the data collected, Los Tretos Street meets only 1 of the 4 warrants and therefore DOES NOT meet the minimum COA NTMP traffic calming measures threshold.

Appendices

- Appendix A – USLIMITS2 Speed Zoning Report
- Appendix B – Volume and Speed Data
- Appendix C – Crash Data



Appendix A



USLIMITS2 Speed Zoning Report

Project Name: Los Tretos Street Speed Study

Analyst: Thaddeus Yazzie

Date: 06-07-2017

Basic Project Information

Project Number: 6254.05
Route Name: Los Tretos Street
From: Ladera Drive
To: End of cul-de-sac
State: New Mexico
County: Bernalillo County
City: Albuquerque city
Route Type: Road Section in Developed Area
Route Status: Existing

Roadway Information

Section Length: .22 mile(s)
Statutory Speed Limit: 25 mph
Adverse Alignment: No
One-Way Street: No
Divided/Undivided: Undivided
Number of Through Lanes: 2
Area Type: Residential-Subdivision
Number of Driveways: 21
Number of Signals: 0

Crash Data Information

Crash Data Years: 3.00
Crash AADT: 339 veh/day
Total Number of Crashes: 2
Total Number of Injury Crashes: 1
Section Crash Rate: 2449 per 100 MVM
Section Injury Crash Rate: 1225 per 100 MVM
Crash Rate Average for Similar Roads: 263
Injury Rate Average for Similar Roads: 67

Traffic Information

85th Percentile Speed: 26 mph
50th Percentile Speed: 18 mph
AADT: 339 veh/day
On Street Parking and Usage: Not High
Pedestrian / Bicyclist Activity: Not High

Project Description: Los Tretos Street Speed Study from Ladera Drive to the end of the cu-de-sac.

Recommended Speed Limit:



Note: The section crash rate of 2449 per 100 MVM is above the critical rate (2338). The injury crash rate for the section of 1225 per 100 MVM is more than 30 percent above the average for similar roads (67) but below the critical rate (1419). A comprehensive crash study should be undertaken to identify engineering and traffic control deficiencies and appropriate corrective actions. The speed limit should only be reduced as a last measure after all other treatments have either been tried or ruled out.

Appendix B



Special Speed Study Report: Los Tretos North

Station ID : Los Tretos North

Info Line 1 : North of Pastorcito
Info Line 2 : Albuquerque

GPS Lat/Lon :

DB File : L T NO PAST.DB

Last Connected Device Type : Apollo

Version Number : 1.66

Serial Number :

Number of Lanes : 1

Posted Speed Limit : 0.0 mph

Lane #1 Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
1.	Northbound		Ax-Ax	4.0 ft	6.0 ft	

Lane #1 Special Speed Study Data From: 00:00 - 04/18/2017 To: 23:59 - 04/19/2017

Date	Time	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	Total
		0 - 19.9	20 - 24.9	25 - 29.9	30 - 34.9	35 - 39.9	40 - 44.9	45 - 49.9	50 - 54.9	55 - 59.9	60 - 64.9	65 - 69.9	70 - 74.9	75 - 79.9	80 - 84.9	85 - 89.9	Other	
04/18/17	00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tue	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	04:00	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	06:00	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	07:00	19	7	5	2	0	0	0	0	0	0	0	0	0	0	0	0	33
	08:00	7	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	11
	09:00	4	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	10
	10:00	7	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	11:00	9	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	12:00	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	13:00	8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	14:00	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	15:00	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
	16:00	11	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	16
	17:00	14	2	2	0	0	0	0	0	0	1	0	0	0	0	0	0	19
	18:00	7	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	14
	19:00	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	20:00	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	21:00	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	22:00	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	23:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Daily Total :		138	45	20	5	0	0	0	0	0	1	0	0	0	0	0	0	209
Percent :		66%	22%	10%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		66%	88%	97%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9

Average Speed	15.2 mph	50% Speed : 12.2 mph	67% Speed : 21.3 mph
			85% Speed : 23.5 mph
			10mph Pace: 5.8 - 15.7 (66.0%)

Date	Time	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	Other	Total
		0 - 19.9	20 - 24.9	25 - 29.9	30 - 34.9	35 - 39.9	40 - 44.9	45 - 49.9	50 - 54.9	55 - 59.9	60 - 64.9	65 - 69.9	70 - 74.9	75 - 79.9	80 - 84.9	85 - 89.9			
04/19/17	00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wed	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	05:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	06:00	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	07:00	11	8	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	25
	08:00	9	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	12
	09:00	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	10:00	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	11:00	6	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	12:00	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	13:00	7	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	14:00	5	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	15:00	10	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
	16:00	3	4	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	12
	17:00	8	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
	18:00	15	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
	19:00	9	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	20:00	5	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	21:00	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	22:00	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily Total :		109	53	23	8	0	0	0	0	0	0	0	0	0	0	0	0	0	193
Percent :		56%	27%	12%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		56%	84%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
Average :		5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8

Average Speed	16.4 mph	50% Speed :	12.6 mph	67% Speed :	22.1 mph	85% Speed :	26.9 mph
				10mph Pace:	6.6 - 16.5 (56.5%)		

Lane #3 Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
3.		Southbound	Ax-Ax	4.0 ft	6.0 ft	

Lane #3 Special Speed Study Data From: 00:00 - 04/18/2017 To: 23:59 - 04/19/2017

Date	Time	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	Total
		0 - 19.9	20 - 24.9	25 - 29.9	30 - 34.9	35 - 39.9	40 - 44.9	45 - 49.9	50 - 54.9	55 - 59.9	60 - 64.9	65 - 69.9	70 - 74.9	75 - 79.9	80 - 84.9	85 - 89.9	Other	
04/18/17	00:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Tue	01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	03:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	05:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
	06:00	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
	07:00	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	08:00	7	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0	15
	09:00	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	10:00	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4
	11:00	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
	12:00	9	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	14
	13:00	4	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	14:00	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
	15:00	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	16:00	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
	17:00	17	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	22
	18:00	7	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	15
	19:00	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	20:00	2	1	1	1	0	0	0	1	0	0	0	1	0	0	0	0	7
	21:00	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	22:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	23:00	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Daily Total :		123	39	12	9	0	0	0	1	0	0	0	1	0	0	0	0	185
Percent :		66%	21%	6%	5%	0%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	0%	
Cum. Percent :		66%	88%	94%	99%	99%	99%	99%	99%	99%	99%	99%	100%	100%	100%	100%	100%	
Average :		5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8

Average Speed 15.4 mph	50% Speed : 11.9 mph	67% Speed : 13.9 mph	85% Speed : 23.4 mph
10mph Pace: 6.2 - 16.1 (66.5%)			

Date	Time	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	Other	Total
		0 - 19.9	20 - 24.9	25 - 29.9	30 - 34.9	35 - 39.9	40 - 44.9	45 - 49.9	50 - 54.9	55 - 59.9	60 - 64.9	65 - 69.9	70 - 74.9	75 - 79.9	80 - 84.9	85 - 89.9			
04/19/17	00:00	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3
Wed	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	06:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	07:00	3	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	08:00	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	09:00	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	10:00	6	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
	11:00	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	12:00	4	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	13:00	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	14:00	7	4	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	14
	15:00	8	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
	16:00	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	17:00	8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	18:00	5	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	19:00	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	20:00	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	21:00	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	22:00	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	23:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Daily Total :		84	56	13	3	1	0	1	0	0	0	0	0	0	0	0	0	0	158
Percent :		53%	35%	8%	2%	1%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		53%	89%	97%	99%	99%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7

Average Speed	16.7 mph	50% Speed :	12.4 mph	67% Speed :	22.1 mph	85% Speed :	23.9 mph
10mph Pace: 7.5 - 17.4 (53.2%)							

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16		
	0 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -			
Date	Time	19.9	24.9	29.9	34.9	39.9	44.9	49.9	54.9	59.9	64.9	69.9	74.9	79.9	84.9	89.9	Other	Total

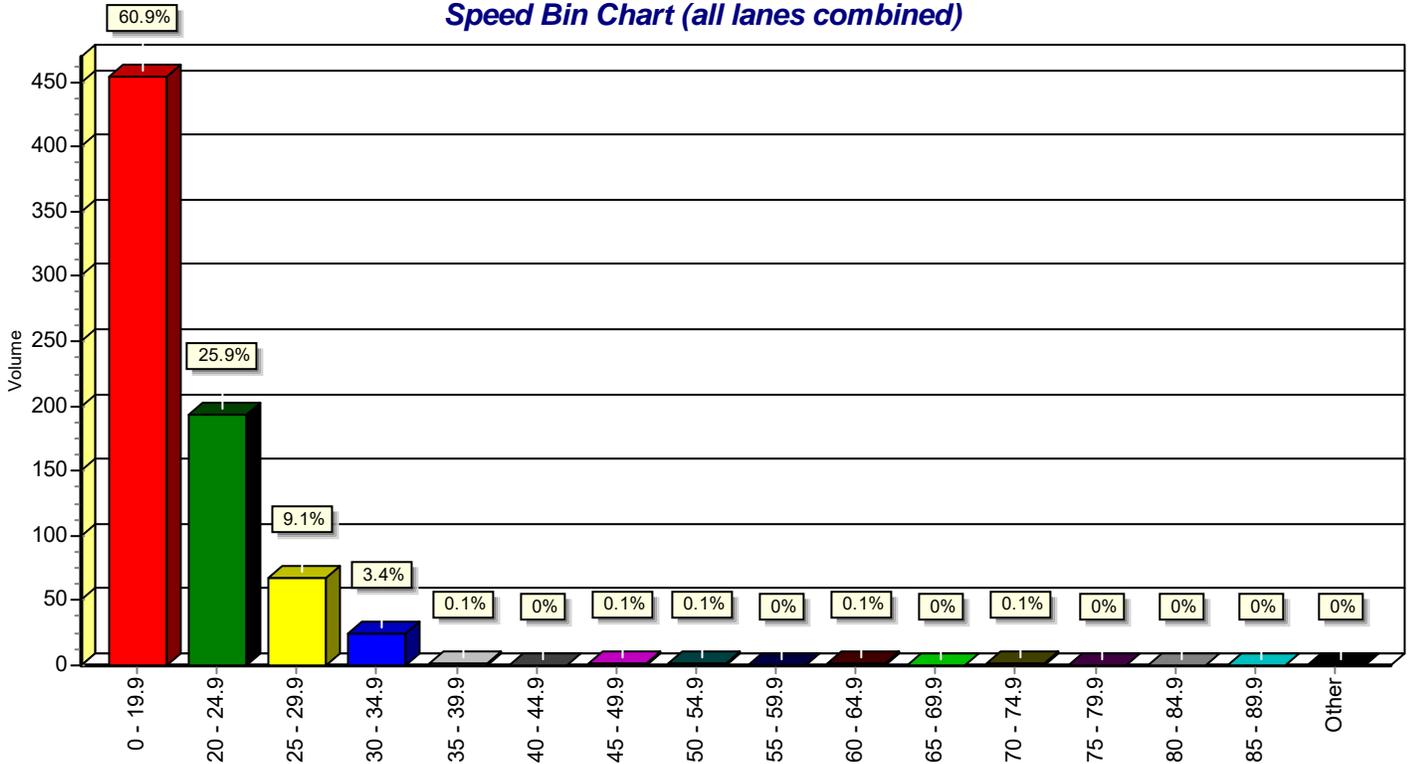
Special Speed Study Summary: Los Tretos North

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16																
	0 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -																	
Description	19.9	24.9	29.9	34.9	39.9	44.9	49.9	54.9	59.9	64.9	69.9	74.9	79.9	84.9	89.9	Other	Total															
Grand Total #1:	247	98	43	13	0	0	0	0	0	1	0	0	0	0	0	0	402															
Percent :	61%	24%	11%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																
Cum. Percent :	61%	86%	97%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%																
Average :	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8															
ADT = 201	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Average Speed</td> <td>15.7 mph</td> <td style="width: 25%;">50% Speed :</td> <td>14.9 mph</td> <td style="width: 25%;">67% Speed :</td> <td>21.4 mph</td> <td style="width: 25%;">85% Speed :</td> <td>24.7 mph</td> </tr> <tr> <td colspan="4"></td> <td colspan="4">10mph Pace: 7.7 - 17.6 (40.0%)</td> </tr> </table>																Average Speed	15.7 mph	50% Speed :	14.9 mph	67% Speed :	21.4 mph	85% Speed :	24.7 mph					10mph Pace: 7.7 - 17.6 (40.0%)			
Average Speed	15.7 mph	50% Speed :	14.9 mph	67% Speed :	21.4 mph	85% Speed :	24.7 mph																									
				10mph Pace: 7.7 - 17.6 (40.0%)																												
Grand Total #3:	207	95	25	12	1	0	1	1	0	0	0	1	0	0	0	0	343															
Percent :	60%	28%	7%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																
Cum. Percent :	60%	88%	95%	99%	99%	99%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%																
Average :	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7															
ADT = 171	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Average Speed</td> <td>16.0 mph</td> <td style="width: 25%;">50% Speed :</td> <td>14.2 mph</td> <td style="width: 25%;">67% Speed :</td> <td>21.4 mph</td> <td style="width: 25%;">85% Speed :</td> <td>24.3 mph</td> </tr> <tr> <td colspan="4"></td> <td colspan="4">10mph Pace: 6.5 - 16.4 (46.9%)</td> </tr> </table>																Average Speed	16.0 mph	50% Speed :	14.2 mph	67% Speed :	21.4 mph	85% Speed :	24.3 mph					10mph Pace: 6.5 - 16.4 (46.9%)			
Average Speed	16.0 mph	50% Speed :	14.2 mph	67% Speed :	21.4 mph	85% Speed :	24.3 mph																									
				10mph Pace: 6.5 - 16.4 (46.9%)																												
Comb. Total :	454	193	68	25	1	0	1	1	0	1	0	1	0	0	0	0	745															
Percent :	61%	26%	9%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																
Cum. Percent :	61%	87%	96%	99%	99%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%																
Average :	9	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	15															
ADT = 372	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Average Speed</td> <td>15.8 mph</td> <td style="width: 25%;">50% Speed :</td> <td>14.9 mph</td> <td style="width: 25%;">67% Speed :</td> <td>21.5 mph</td> <td style="width: 25%;">85% Speed :</td> <td>24.5 mph</td> </tr> <tr> <td colspan="4"></td> <td colspan="4">10mph Pace: 5.9 - 15.8 (39.5%)</td> </tr> </table>																Average Speed	15.8 mph	50% Speed :	14.9 mph	67% Speed :	21.5 mph	85% Speed :	24.5 mph					10mph Pace: 5.9 - 15.8 (39.5%)			
Average Speed	15.8 mph	50% Speed :	14.9 mph	67% Speed :	21.5 mph	85% Speed :	24.5 mph																									
				10mph Pace: 5.9 - 15.8 (39.5%)																												

Speed Percent vs. Time (all lanes)



Speed Bin Chart (all lanes combined)



Special Speed Study Report: Los Tretos South

Station ID : Los Tretos South

Info Line 1 : South of Pastorcito
 Info Line 2 : Albuquerque

GPS Lat/Lon :

DB File : LOS T SO PASTO.DB

Last Connected Device Type : Apollo

Version Number : 1.62

Serial Number : 21494

Number of Lanes : 1

Posted Speed Limit : 0.0 mph

Lane #1 Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
1.	Northbound		Ax-Ax	4.0 ft	6.0 ft	

Lane #1 Special Speed Study Data From: 00:00 - 04/18/2017 To: 23:59 - 04/19/2017

Date	Time	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	Total
		0 - 19.9	20 - 24.9	25 - 29.9	30 - 34.9	35 - 39.9	40 - 44.9	45 - 49.9	50 - 54.9	55 - 59.9	60 - 64.9	65 - 69.9	70 - 74.9	75 - 79.9	80 - 84.9	85 - 89.9	Other	
04/18/17	00:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Tue	01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	06:00	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	07:00	8	11	5	1	0	0	0	0	0	0	0	0	0	0	0	0	25
	08:00	2	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	8
	09:00	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	10:00	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	11:00	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
	12:00	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	13:00	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	14:00	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	15:00	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	16:00	6	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	17
	17:00	6	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	12
	18:00	5	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	15
	19:00	5	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	20:00	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	21:00	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	22:00	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Daily Total :		79	69	20	3	0	0	0	0	0	0	0	0	0	0	0	0	171
Percent :		46%	40%	12%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		46%	87%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7

Average Speed 17.5 mph	50% Speed : 20.8 mph	67% Speed : 22.6 mph
		85% Speed : 24.5 mph
10mph Pace: 20.4 - 30.3 (52.0%)		

Date	Time	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	Total
		0 - 19.9	20 - 24.9	25 - 29.9	30 - 34.9	35 - 39.9	40 - 44.9	45 - 49.9	50 - 54.9	55 - 59.9	60 - 64.9	65 - 69.9	70 - 74.9	75 - 79.9	80 - 84.9	85 - 89.9	Other	
04/19/17	00:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Wed	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	06:00	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	07:00	9	14	4	0	0	0	0	0	0	0	0	0	0	0	0	0	27
	08:00	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7
	09:00	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	10:00	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	11:00	7	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	13
	12:00	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	13:00	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	14:00	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	15:00	7	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	16:00	5	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	17:00	4	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	15
	18:00	10	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	20
	19:00	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
	20:00	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	21:00	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	22:00	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	23:00	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Daily Total :		86	70	21	2	0	0	0	0	0	0	0	0	0	0	0	0	179
Percent :		48%	39%	12%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		48%	87%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	8

Average Speed	17.2 mph	50% Speed :	20.6 mph	67% Speed :	22.4 mph	85% Speed :	24.5 mph
				10mph Pace:	20.4 - 30.3 (50.8%)		

Lane #3 Configuration

#	Dir.	Information	Vehicle Sensors	Sensor Spacing	Loop Length	Comment
3.		Southbound	Ax-Ax	4.0 ft	6.0 ft	

Lane #3 Special Speed Study Data From: 00:00 - 04/18/2017 To: 23:59 - 04/19/2017

Date	Time	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	Total
		0 - 19.9	20 - 24.9	25 - 29.9	30 - 34.9	35 - 39.9	40 - 44.9	45 - 49.9	50 - 54.9	55 - 59.9	60 - 64.9	65 - 69.9	70 - 74.9	75 - 79.9	80 - 84.9	85 - 89.9	Other	
04/18/17	00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tue	01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	05:00	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	06:00	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	07:00	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	08:00	4	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	13
	09:00	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	10:00	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	4
	11:00	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	12:00	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	13:00	9	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	14:00	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	15:00	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	16:00	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	17:00	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
	18:00	6	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	19:00	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	20:00	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	21:00	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	22:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	23:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Daily Total :		74	38	13	2	0	0	0	0	0	0	0	0	0	0	0	0	127
Percent :		58%	30%	10%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Cum. Percent :		58%	88%	98%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6

Average Speed 15.9 mph 50% Speed : 11.7 mph 67% Speed : 22.1 mph 85% Speed : 23.4 mph
 10mph Pace: 7.8 - 17.7 (58.3%)

Date	Time	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16	Total
		0 - 19.9	20 - 24.9	25 - 29.9	30 - 34.9	35 - 39.9	40 - 44.9	45 - 49.9	50 - 54.9	55 - 59.9	60 - 64.9	65 - 69.9	70 - 74.9	75 - 79.9	80 - 84.9	85 - 89.9	Other	
04/19/17	00:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Wed	01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	05:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	06:00	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	07:00	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	8
	08:00	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	09:00	1	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	7
	10:00	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	9
	11:00	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	12:00	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	13:00	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	14:00	8	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	15:00	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6
	16:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	17:00	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
	18:00	6	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	13
	19:00	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	20:00	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	21:00	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	22:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	23:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Daily Total :		49	42	14	1	0	0	0	0	0	0	0	0	0	0	0	0	106
Percent :		46%	40%	13%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
Cum. Percent :		46%	86%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Average :		2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5

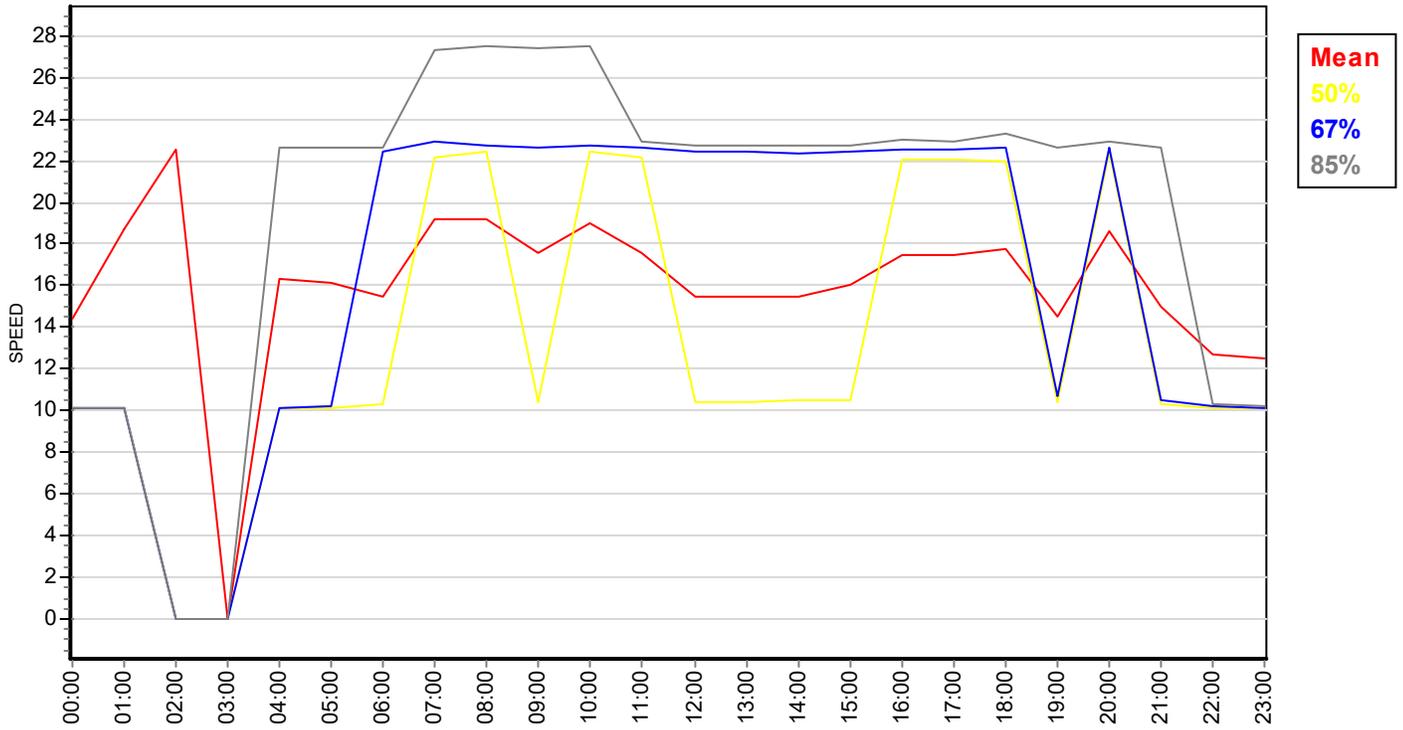
Average Speed	17.5 mph	50% Speed :	21.5 mph	67% Speed :	22.6 mph	85% Speed :	23.8 mph
				10mph Pace:	21.3 - 31.2 (52.8%)		

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16		
	0 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -			
Date	Time	19.9	24.9	29.9	34.9	39.9	44.9	49.9	54.9	59.9	64.9	69.9	74.9	79.9	84.9	89.9	Other	Total

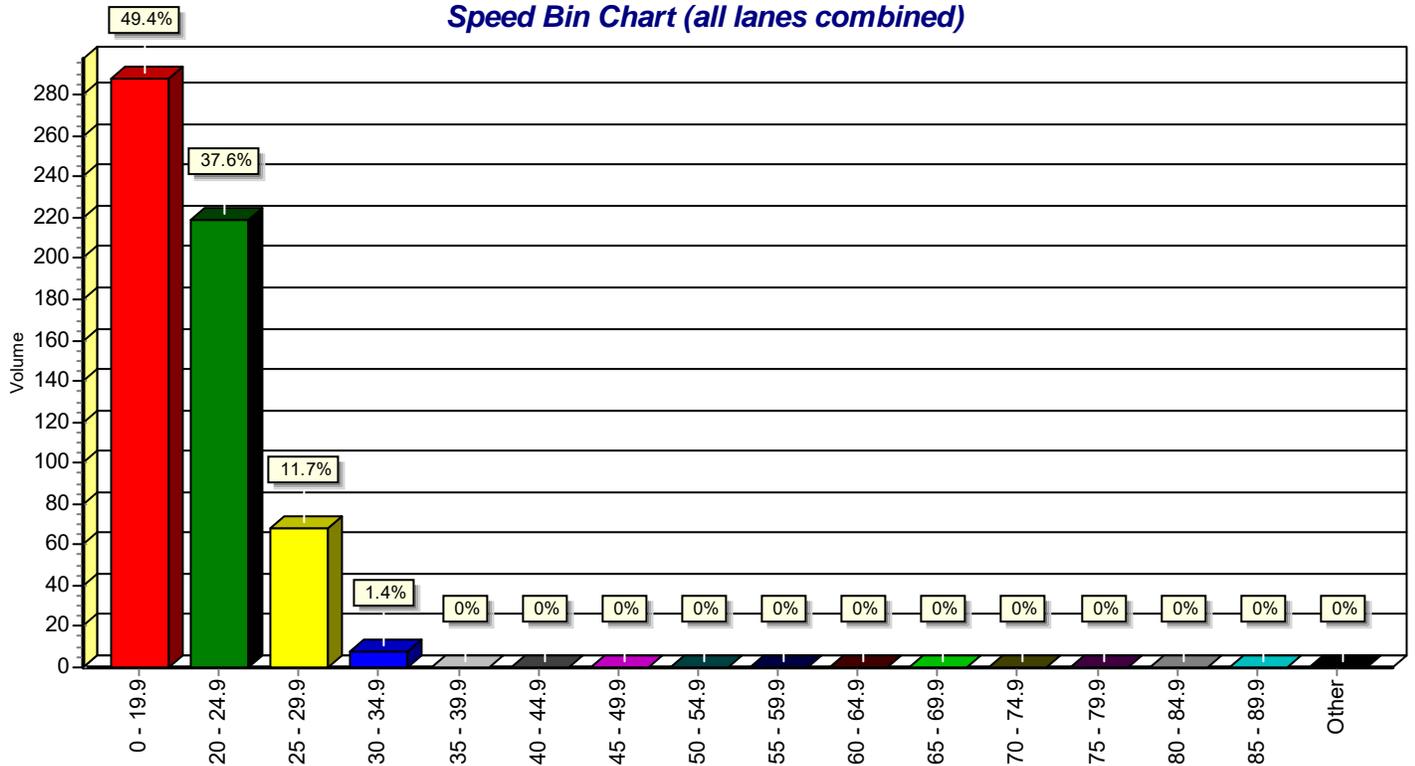
Special Speed Study Summary: Los Tretos South

	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15	#16																
	0 - 19.9	20 - 24.9	25 - 29.9	30 - 34.9	35 - 39.9	40 - 44.9	45 - 49.9	50 - 54.9	55 - 59.9	60 - 64.9	65 - 69.9	70 - 74.9	75 - 79.9	80 - 84.9	85 - 89.9	Other	Total															
Grand Total #1:	165	139	41	5	0	0	0	0	0	0	0	0	0	0	0	0	350															
Percent :	47%	40%	12%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																
Cum. Percent :	47%	87%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%																
Average :	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7															
ADT = 175	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Average Speed</td> <td>17.3 mph</td> <td style="width: 25%;">50% Speed :</td> <td>20.7 mph</td> <td style="width: 25%;">67% Speed :</td> <td>22.6 mph</td> <td style="width: 25%;">85% Speed :</td> <td>24.5 mph</td> </tr> <tr> <td colspan="8">10mph Pace: 20.1 - 30.0 (51.4%)</td> </tr> </table>																Average Speed	17.3 mph	50% Speed :	20.7 mph	67% Speed :	22.6 mph	85% Speed :	24.5 mph	10mph Pace: 20.1 - 30.0 (51.4%)							
Average Speed	17.3 mph	50% Speed :	20.7 mph	67% Speed :	22.6 mph	85% Speed :	24.5 mph																									
10mph Pace: 20.1 - 30.0 (51.4%)																																
Grand Total #3:	123	80	27	3	0	0	0	0	0	0	0	0	0	0	0	0	233															
Percent :	53%	34%	12%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																
Cum. Percent :	53%	87%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%																
Average :	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6															
ADT = 116	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Average Speed</td> <td>16.6 mph</td> <td style="width: 25%;">50% Speed :</td> <td>13.4 mph</td> <td style="width: 25%;">67% Speed :</td> <td>22.1 mph</td> <td style="width: 25%;">85% Speed :</td> <td>24.7 mph</td> </tr> <tr> <td colspan="8">10mph Pace: 6.2 - 16.1 (52.8%)</td> </tr> </table>																Average Speed	16.6 mph	50% Speed :	13.4 mph	67% Speed :	22.1 mph	85% Speed :	24.7 mph	10mph Pace: 6.2 - 16.1 (52.8%)							
Average Speed	16.6 mph	50% Speed :	13.4 mph	67% Speed :	22.1 mph	85% Speed :	24.7 mph																									
10mph Pace: 6.2 - 16.1 (52.8%)																																
Comb. Total :	288	219	68	8	0	0	0	0	0	0	0	0	0	0	0	0	583															
Percent :	49%	38%	12%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%																
Cum. Percent :	49%	87%	99%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%																
Average :	6	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	12															
ADT = 291	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">Average Speed</td> <td>17.0 mph</td> <td style="width: 25%;">50% Speed :</td> <td>20.2 mph</td> <td style="width: 25%;">67% Speed :</td> <td>22.4 mph</td> <td style="width: 25%;">85% Speed :</td> <td>24.6 mph</td> </tr> <tr> <td colspan="8">10mph Pace: 20.1 - 30.0 (49.2%)</td> </tr> </table>																Average Speed	17.0 mph	50% Speed :	20.2 mph	67% Speed :	22.4 mph	85% Speed :	24.6 mph	10mph Pace: 20.1 - 30.0 (49.2%)							
Average Speed	17.0 mph	50% Speed :	20.2 mph	67% Speed :	22.4 mph	85% Speed :	24.6 mph																									
10mph Pace: 20.1 - 30.0 (49.2%)																																

Speed Percent vs. Time (all lanes)



Speed Bin Chart (all lanes combined)



Basic Volume Report: Los Tretos North

Station ID : Los Tretos North

Info Line 1 : North of Pastorcito

Info Line 2 : Albuquerque

GPS Lat/Lon :

DB File : L T NO PAST.DB

Last Connected Device Type : Apollo

Version Number : 1.66

Serial Number :

Number of Lanes : 1

Posted Speed Limit : 0.0 mph

Lane #1 Configuration

#	Dir.	Information	Volume Mode	Volume Sensors	Divide By 2	Comment
1.	Northbound		Normal	Veh.	No	

Lane #1 Basic Volume Data From: 00:00 - 04/18/2017 To: 23:59 - 04/19/2017

Date	Time	:00	:15	:30	:45	Total
04/18/17	00:00	0	0	0	0	0
Tue	01:00	0	0	0	0	0
	02:00	0	0	0	0	0
	03:00	0	2	0	0	2
	04:00	0	3	0	0	3
	05:00	0	0	1	0	1
	06:00	1	2	2	4	9
	07:00	3	2	8	21	34
	08:00	3	3	3	2	11
	09:00	2	5	2	1	10
	10:00	5	0	2	4	11
	11:00	2	0	3	7	12
	12:00	2	2	1	4	9
	13:00	2	4	3	1	10
	14:00	2	1	3	3	9
	15:00	4	3	5	2	14
	16:00	5	6	2	3	16
	17:00	5	5	5	6	21
	18:00	8	1	3	2	14
	19:00	2	2	4	2	10
	20:00	1	3	2	0	6
	21:00	1	1	0	3	5
	22:00	1	1	1	3	6
	23:00	0	0	0	1	1

Day Total : 214

AM Total :	93 (43.5%)	Peak AM Hour : 07:30 =	35 (16.4%)	Peak AM Factor : 0.417	Average Period :	2.2
PM Total :	121 (56.5%)	Peak PM Hour : 17:15 =	24 (11.2%)	Peak PM Factor : 0.750	Average Hour :	8.9

Date	Time	:00	:15	:30	:45	Total
04/19/17	00:00	0	0	0	0	0
Wed	01:00	0	0	0	0	0
	02:00	0	0	0	0	0
	03:00	0	0	0	0	0
	04:00	1	0	1	0	2
	05:00	0	0	1	1	2
	06:00	0	1	3	1	5
	07:00	2	6	11	7	26
	08:00	4	2	3	3	12
	09:00	1	0	2	2	5
	10:00	3	1	2	1	7
	11:00	2	3	3	2	10
	12:00	2	2	2	2	8
	13:00	4	4	1	3	12
	14:00	2	2	4	2	10
	15:00	4	4	4	6	18
	16:00	3	4	3	2	12
	17:00	5	3	3	4	15
	18:00	7	13	5	3	28
	19:00	4	4	2	3	13
	20:00	3	5	0	2	10
	21:00	3	1	1	0	5
	22:00	1	1	1	0	3
	23:00	0	0	0	0	0

Day Total : 203

AM Total :	69 (34.0%)	Peak AM Hour : 07:15 =	28 (13.8%)	Peak AM Factor : 0.636	Average Period :	2.1
PM Total :	134 (66.0%)	Peak PM Hour : 17:45 =	29 (14.3%)	Peak PM Factor : 0.558	Average Hour :	8.5

Lane #3 Configuration

#	Dir. Information	Volume Mode	Volume Sensors	Divide By 2	Comment
3.	Southbound	Normal	Veh.	No	

Lane #3 Basic Volume Data From: 00:00 - 04/18/2017 To: 23:59 - 04/19/2017

Date	Time	:00	:15	:30	:45	Total
04/18/17	00:00	0	0	0	1	1
Tue	01:00	1	0	0	0	1
	02:00	1	0	0	0	1
	03:00	0	1	0	0	1
	04:00	0	1	0	0	1
	05:00	0	1	0	0	1
	06:00	1	1	2	1	5
	07:00	0	0	4	3	7
	08:00	2	1	3	9	15
	09:00	2	1	0	3	6
	10:00	1	0	3	0	4
	11:00	0	1	2	3	6
	12:00	1	1	7	5	14
	13:00	2	1	5	2	10
	14:00	3	5	6	5	19
	15:00	2	2	2	4	10
	16:00	4	4	9	1	18
	17:00	5	4	6	7	22
	18:00	5	3	2	6	16
	19:00	2	3	2	1	8
	20:00	1	1	4	2	8
	21:00	3	1	2	2	8
	22:00	0	0	0	2	2
	23:00	2	0	1	1	4

Day Total : 188

AM Total :	49 (26.1%)	Peak AM Hour : 08:00 =	15 (8.0%)	Peak AM Factor : 0.417	Average Period :	2.0
PM Total :	139 (73.9%)	Peak PM Hour : 17:00 =	22 (11.7%)	Peak PM Factor : 0.611	Average Hour :	7.8

Date	Time	:00	:15	:30	:45	Total
04/19/17	00:00	0	1	1	1	3
Wed	01:00	0	0	0	0	0
	02:00	0	0	0	0	0
	03:00	0	0	0	0	0
	04:00	0	0	1	0	1
	05:00	0	0	0	0	0
	06:00	0	1	0	1	2
	07:00	2	1	3	2	8
	08:00	2	0	1	2	5
	09:00	4	0	1	3	8
	10:00	2	5	0	5	12
	11:00	1	1	3	2	7
	12:00	2	1	4	4	11
	13:00	2	2	2	2	8
	14:00	8	3	3	1	15
	15:00	4	2	6	3	15
	16:00	0	2	2	5	9
	17:00	2	7	3	1	13
	18:00	2	4	8	3	17
	19:00	1	3	2	2	8
	20:00	3	3	0	7	13
	21:00	1	2	0	2	5
	22:00	1	2	1	0	4
	23:00	0	0	1	1	2
Day Total :						166

AM Total :	46 (27.7%)	Peak AM Hour : 10:00 =	12 (7.2%)	Peak AM Factor : 0.600	Average Period :	1.7
PM Total :	120 (72.3%)	Peak PM Hour : 16:45 =	17 (10.2%)	Peak PM Factor : 0.531	Average Hour :	6.9

Basic Volume Summary: Los Tretos North

Grand Total For Data From: 00:00 - 04/18/2017 To: 23:59 - 04/19/2017

Lane	Total Count	# Of Days	ADT	Avg. Period	Avg. Hour	AM Total & Percent	PM Total & Percent
#1.	417 (54.1%)	2.00	209	2.2	8.7	162 (38.8%)	255 (61.2%)
#3.	354 (45.9%)	2.00	177	1.8	7.4	95 (26.8%)	259 (73.2%)
ALL	771	2.00	386	4.0	16.1	257 (33.3%)	514 (66.7%)

Lane	Peak AM Hour	Date	Peak AM Factor	Peak PM Hour	Date	Peak PM Factor
#1.	07:30 = 35	04/18/2017	0.417	17:45 = 29	04/19/2017	0.558
#3.	08:00 = 15	04/18/2017	0.417	17:00 = 22	04/18/2017	0.611

Basic Volume Report: Los Tretos South

Station ID : Los Tretos South

Info Line 1 : South of Pastorcito

Info Line 2 : Albuquerque

GPS Lat/Lon :

DB File : LOS T SO PASTO.DB

Last Connected Device Type : Apollo

Version Number : 1.62

Serial Number : 21494

Number of Lanes : 1

Posted Speed Limit : 0.0 mph

Lane #1 Configuration

#	Dir.	Information	Volume Mode	Volume Sensors	Divide By 2	Comment
1.	Northbound		Normal	Veh.	No	

Lane #1 Basic Volume Data From: 00:00 - 04/18/2017 To: 23:59 - 04/19/2017

Date	Time	:00	:15	:30	:45	Total
04/18/17	00:00	0	1	0	0	1
Tue	01:00	0	0	1	0	1
	02:00	0	0	0	0	0
	03:00	0	0	0	0	0
	04:00	0	2	0	0	2
	05:00	0	0	1	0	1
	06:00	1	2	1	3	7
	07:00	6	2	5	12	25
	08:00	2	4	1	1	8
	09:00	1	4	1	0	6
	10:00	3	1	0	3	7
	11:00	0	1	3	1	5
	12:00	0	4	3	4	11
	13:00	3	1	2	1	7
	14:00	1	3	1	2	7
	15:00	4	1	1	5	11
	16:00	5	5	1	6	17
	17:00	1	2	6	3	12
	18:00	6	3	4	2	15
	19:00	2	1	5	2	10
	20:00	2	3	2	0	7
	21:00	2	1	1	4	8
	22:00	1	1	1	0	3
	23:00	0	0	0	0	0

Day Total : 171

AM Total :	63 (36.8%)	Peak AM Hour : 07:00 =	25 (14.6%)	Peak AM Factor : 0.521	Average Period :	1.8
PM Total :	108 (63.2%)	Peak PM Hour : 17:30 =	18 (10.5%)	Peak PM Factor : 0.750	Average Hour :	7.1

Date	Time	:00	:15	:30	:45	Total
04/19/17	00:00	0	2	0	0	2
Wed	01:00	0	0	0	0	0
	02:00	0	0	0	0	0
	03:00	0	0	0	0	0
	04:00	0	0	0	0	0
	05:00	0	0	0	1	1
	06:00	0	1	3	0	4
	07:00	3	10	8	6	27
	08:00	2	2	1	2	7
	09:00	1	2	2	1	6
	10:00	0	2	1	1	4
	11:00	7	1	1	4	13
	12:00	0	3	3	0	6
	13:00	1	3	2	1	7
	14:00	0	2	5	2	9
	15:00	1	7	2	3	13
	16:00	5	3	3	2	13
	17:00	4	2	4	5	15
	18:00	2	10	3	5	20
	19:00	6	1	2	2	11
	20:00	2	4	1	2	9
	21:00	1	1	1	2	5
	22:00	0	1	3	0	4
	23:00	2	0	0	1	3
Day Total :						179

AM Total :	64 (35.8%)	Peak AM Hour : 07:00 =	27 (15.1%)	Peak AM Factor : 0.675	Average Period :	1.9
PM Total :	115 (64.2%)	Peak PM Hour : 18:15 =	24 (13.4%)	Peak PM Factor : 0.600	Average Hour :	7.5

Lane #3 Configuration

#	Dir. Information	Volume Mode	Volume Sensors	Divide By 2	Comment
3.	Southbound	Normal	Veh.	No	

Lane #3 Basic Volume Data From: 00:00 - 04/18/2017 To: 23:59 - 04/19/2017

Date	Time	:00	:15	:30	:45	Total
04/18/17	00:00	0	0	0	0	0
Tue	01:00	1	0	0	0	1
	02:00	1	0	0	0	1
	03:00	0	0	0	0	0
	04:00	0	1	0	0	1
	05:00	0	1	2	0	3
	06:00	2	0	3	2	7
	07:00	1	1	0	3	5
	08:00	1	1	3	8	13
	09:00	1	2	0	1	4
	10:00	2	0	2	0	4
	11:00	0	0	2	2	4
	12:00	1	1	4	3	9
	13:00	5	1	5	2	13
	14:00	3	2	1	4	10
	15:00	1	1	1	2	5
	16:00	3	0	4	1	8
	17:00	4	1	5	2	12
	18:00	3	4	3	3	13
	19:00	1	2	1	0	4
	20:00	1	0	2	1	4
	21:00	1	2	1	0	4
	22:00	1	0	0	0	1
	23:00	1	0	0	0	1

Day Total : 127

AM Total :	43 (33.9%)	Peak AM Hour : 08:30 =	14 (11.0%)	Peak AM Factor : 0.438	Average Period : 1.3
PM Total :	84 (66.1%)	Peak PM Hour : 12:45 =	14 (11.0%)	Peak PM Factor : 0.700	Average Hour : 5.3

Date	Time	:00	:15	:30	:45	Total
04/19/17	00:00	0	0	1	0	1
Wed	01:00	0	0	0	0	0
	02:00	0	0	0	0	0
	03:00	0	0	0	0	0
	04:00	0	0	1	0	1
	05:00	0	0	0	2	2
	06:00	1	0	0	2	3
	07:00	2	1	2	3	8
	08:00	2	1	1	1	5
	09:00	1	0	1	5	7
	10:00	1	2	1	5	9
	11:00	3	1	1	3	8
	12:00	2	0	3	1	6
	13:00	1	0	1	1	3
	14:00	5	3	5	0	13
	15:00	2	0	3	1	6
	16:00	1	0	0	1	2
	17:00	0	1	2	0	3
	18:00	2	2	5	4	13
	19:00	1	3	1	0	5
	20:00	1	1	0	2	4
	21:00	1	3	0	1	5
	22:00	0	0	0	1	1
	23:00	0	1	0	0	1
Day Total :						106

AM Total :	44 (41.5%)	Peak AM Hour : 10:15 =	11 (10.4%)	Peak AM Factor : 0.550	Average Period :	1.1
PM Total :	62 (58.5%)	Peak PM Hour : 13:45 =	14 (13.2%)	Peak PM Factor : 0.700	Average Hour :	4.4

Basic Volume Summary: Los Tretos South

Grand Total For Data From: 00:00 - 04/18/2017 To: 23:59 - 04/19/2017

Lane	Total Count	# Of Days	ADT	Avg. Period	Avg. Hour	AM Total & Percent	PM Total & Percent
#1.	350 (60.0%)	2.00	175	1.8	7.3	127 (36.3%)	223 (63.7%)
#3.	233 (40.0%)	2.00	117	1.2	4.9	87 (37.3%)	146 (62.7%)
ALL	583	2.00	292	3.0	12.2	214 (36.7%)	369 (63.3%)

Lane	Peak AM Hour	Date	Peak AM Factor	Peak PM Hour	Date	Peak PM Factor
#1.	07:00 = 27	04/19/2017	0.675	18:15 = 24	04/19/2017	0.600
#3.	08:30 = 14	04/18/2017	0.438	12:45 = 14	04/18/2017	0.700

OBJECTID	ReportIDSt	Date	CrashDate	Year
338260	14.710146911	3/2/2014	20140302	2014
342216	14.710188165	9/25/2014	20140925	2014
OBJECTID	Day	Month	Time24	Hour24
338260	1	3	1850	18
342216	5	9	736	7
OBJECTID	Agency	County	City	AStreet
338260	3	1	7825	LOS TRETOS NW
342216	3	1	7825	PASTORCITO DR NW
OBJECTID	BStreet	Landmark	Route	MilePost
338260	PASTORCITO DR NW			0
342216	LOS TRETOS NW			0
OBJECTID	NumVeh	NumPersons	NumKilled	NumClassA
338260	2	2	0	0
342216	2	3	0	0
OBJECTID	NumClassB	NumClassC	NumInjured	NumUnhurt
338260	1	0	1	1
342216	0	0	0	3
OBJECTID	Severity	Class	Analysis	TOPCACC
338260	Non-Fatal Crash (injury)	8	e Struck Pedalcyclist At	Excessive Speed
342216	Property Damage Only Cra	4	n Opposite Direction/B	Failure to Yield
OBJECTID	Weather	Lighting	ALCInv	DRUGInv
338260	1	4	F	F
342216	1	1	F	F
OBJECTID	PEDInv	MCIInv	PECIInv	TrkInv
338260	F	F	T	F
342216	F	F	F	F
OBJECTID	HZInv	HitRun	SHTDProp	System
338260	F	T	0	2
342216	F	F	0	2
OBJECTID	MaxDam	RoadRel	Character	Grade
338260	5	T	F	8
342216	3	T	F	8
OBJECTID	NonLocal	Measure	MeasureUni	Direction
338260	2		99	
342216	2		99	



Souder, Miller & Associates • 3451 Candalaria Road NE, Suite D
Albuquerque, NM 87107-1948 • (505) 299-0942 • (877) 299-0942 • fax (505) 293-3430
